

Des 1801500 CE-4  
Appendix E  
Red Flag Investigation



# INDIANA DEPARTMENT OF TRANSPORTATION

## *Driving Indiana's Economic Growth*

100 North Senate Avenue  
Room N642  
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

**Eric Holcomb, Governor**  
**Joe McGuinness, Commissioner**

Date: February 21, 2019

To: Site Assessment & Management  
Environmental Policy Office - Environmental Services Division  
Indiana Department of Transportation  
100 N Senate Avenue, Room N642  
Indianapolis, IN 46204

From: Christian Radcliff  
Green 3, LLC  
1104 Prospect Street  
Indianapolis, Indiana 46203  
[christian@green3studio.com](mailto:christian@green3studio.com)

Re: **RED FLAG INVESTIGATION**  
DES #1801500, State Project  
Interstate Access Project  
I-65 at 109<sup>th</sup> Street  
Lake County, Indiana

### PROJECT DESCRIPTION

**Brief Description of Project:** The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) propose to improve access to I-65 at 109<sup>th</sup> Street in Crown Point, Lake County, Indiana. The proposed improvement includes construction of two roundabouts, one at the northbound ramps and one at the southbound ramps. The roundabouts will be increased from one lane in each direction to two eastbound lanes and one westbound lane. The existing drainage culvert under 109<sup>th</sup> Street on the east side of the interchange will be extended north and south to accommodate the pavement widening. New storm sewers and drainage inlets will be installed to convey storm water.

**Bridge and/or Culvert Project:** Yes  No  Structure # N/A

If this is a bridge project, is the bridge Historical? Yes  No  , Select  Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

**Proposed right of way:** Temporary  # Acres \_\_\_\_\_ Permanent  # Acres 0.2

**Type of excavation:** Excavation for storm sewers will be a maximum of 5 feet in depth. Excavation is estimated to extend approximately 30 feet off the existing pavement.

**Maintenance of traffic:** Traffic will be maintained through temporary lane shifts. I-65 will remain unimpeded. Exit ramps to and from I-65 will see lane shifts. One lane will be open in either direction on 109<sup>th</sup> Street while the third lane is constructed.

**Work in waterway:** Yes  No  Above ordinary high water mark: Yes  No

**State Project:**  LPA:

**Any other factors influencing recommendations:** Right of way limits, excavation limits, and maintenance of traffic are estimates and will be refined as design progresses. The culvert that will be impacted by the project is a county culvert and does not have an inspection report or structure number.

**INFRASTRUCTURE TABLE AND SUMMARY**

<b>Infrastructure</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	N/A	Recreational Facilities	N/A
Airports <sup>1</sup>	N/A	Pipelines	2
Cemeteries	N/A	Railroads	1
Hospitals	N/A	Trails	1
Schools	N/A	Managed Lands	N/A

<sup>1</sup>In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) was conducted.

Explanation:

**Pipelines:** Two (2) pipeline segments are within the 0.5 mile search radius. The nearest segment is a crude oil pipeline managed by the Buckeye Pipeline Company and is approximately 0.09 mile south of the project area. No impact is expected.

**Railroads:** One (1) railroad segment is within the 0.5 mile search radius. The Erie Lackawanna Railroad is approximately 0.11 mile south of the project area. No impact is expected.

**Trails:** One (1) trail is within the 0.5 mile search radius. The nearest trail is approximately 0.12 mile south of the project area and is associated with the Crown Point East to County Line proposed trail. No impact is expected.

**WATER RESOURCES TABLE AND SUMMARY**

<b>Water Resources</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	9
Canal Structures – Historic	N/A	Lakes	2
NPS NRI Listed	N/A	Floodplain - DFIRM	4
NWI-Lines	1	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	5	Sinkhole Areas	N/A
Rivers and Streams	6	Sinking-Stream Basins	N/A

Explanation:

**NWI-Lines:** One (1) NWI line segment is within the 0.5 mile search radius. The nearest segment is approximately 0.19 mile north of the project area and is associated with Beaver Dam Ditch. No impact is expected.

**IDEM 303d Listed Streams and Lakes (Impaired):** Five (5) IDEM 303d listed streams are within the 0.5 mile search radius. The nearest segment is within the immediate project area and is associated with an unnamed tributary to Beaver Dam Ditch. A review of the IDEM 303d map tool verified that this unnamed tributary to Beaver Dam Ditch is listed as impaired by Ammonia, *E. coli*, an impaired biotic community, and nutrients. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Coordination with INDOT ESD Ecology and Waterway Permitting should occur.

**Rivers and Streams:** Six (6) River and Stream segments are within the 0.5 mile search radius. The nearest segment is within the immediate project area and is associated with an unnamed tributary to Beaver Dam Ditch. A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

**NWI Wetlands:** Nine (9) NWI wetland polygons are within the 0.5 mile search radius. The nearest wetland polygon is mapped approximately 0.02 mile south of the project area. The scope of this project will avoid this wetland polygon. No impact is expected.

**Lakes:** Two (2) Lakes are within the 0.5 mile search radius. The nearest lake is approximately 0.02 mile south of the project area. The scope of this project will avoid this lake. No impact is expected.

**Floodplains – DFIRM:** Four (4) floodplain polygons are within the 0.5 mile search radius. The nearest polygon is mapped within the immediate project area. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

**URBANIZED AREA BOUNDARY SUMMARY**

Explanation: The project lies within the Crown Point UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the Crown Point MS4 coordinator at 11035 Broadway, Suite F, Crown Point, IN 46307.

**MINING AND MINERAL EXPLORATION TABLE AND SUMMARY**

<b>Mining/Mineral Exploration</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	<b>N/A</b>	Mineral Resources	<b>N/A</b>
Mines – Surface	<b>N/A</b>	Mines – Underground	<b>N/A</b>

Explanation: No mining/mineral resources were identified within the 0.5 mile search radius.

**HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY**

<b>Hazardous Material Concerns</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	N/A	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	2
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	N/A
Leaking Underground Storage (LUST) Sites	N/A	Notice of Contamination Sites	N/A

Explanation:

**NPDES Facilities:** Two (2) NPDES facilities are within the 0.5 mile search radius. According to the IDEM Virtual File Cabinet (VFC), Edgewater Phase Three (1445 E 112<sup>th</sup> Avenue, AI #113415) and Off Square Brewing (11000 Delaware Parkway, AI #116114) are privately owned facilities that maintain an NPDES permit and are approximately 0.36 mile south of the project area and 0.36 mile southwest of the project area, respectively. No impact is expected.

**ECOLOGICAL INFORMATION SUMMARY**

The Lake County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services Division did not indicate the presence of endangered species. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is in the maintained right of way of I-65. Agricultural land and a pond are located beyond the exit ramps of I-65 with trees lining drainage ditches interspersed beyond the project limits. No inspection for the culvert in the project limits has been completed. Additional investigation to confirm the presence or absence of bats in the culvert will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects”.

An inquiry using the USFWS Information for Planning and Consultation (IPaC) website did not indicate the presence of the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 mile of the project area. No impact is expected.

**RECOMMENDATIONS SECTION**

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE: N/A

WATER RESOURCES: The presence of the following water resources will require the preparation of a Waters of the US Report and coordination with INDOT ESD Ecology and Waterway Permitting:

**Rivers and Streams:** The nearest segment is within the immediate project area and is associated with an unnamed tributary to Beaver Dam Ditch.

**Floodplains – DFIRM:** The nearest polygon is mapped within the immediate project area. (Coordination only)

**IDEM 303d Listed Streams and Lakes (Impaired):** The nearest segment is within the immediate project area and is associated with an unnamed tributary to Beaver Dam Ditch. A review of the IDEM 303d map tool verified that this unnamed tributary to Beaver Dam Ditch is listed as impaired by Ammonia, *E. coli*, an impaired biotic community, and nutrients. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. Coordination with INDOT ESD Ecology and Waterway Permitting should occur.

URBANIZED AREA BOUNDARY: The project lies within the Crown Point UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the Crown Point MS4 coordinator at 11035 Broadway, Suite F, Crown Point, IN 46307.

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Additional investigation to confirm the presence or absence of bats within the culvert will be necessary. Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects”.

INDOT Environmental Services concurrence: Nicole Fokey-Breting (Signature)

May 28, 2019

Prepared by:  
Christian Radcliff  
Ecologist  
Green 3, LLC

**Graphics:**

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: YES

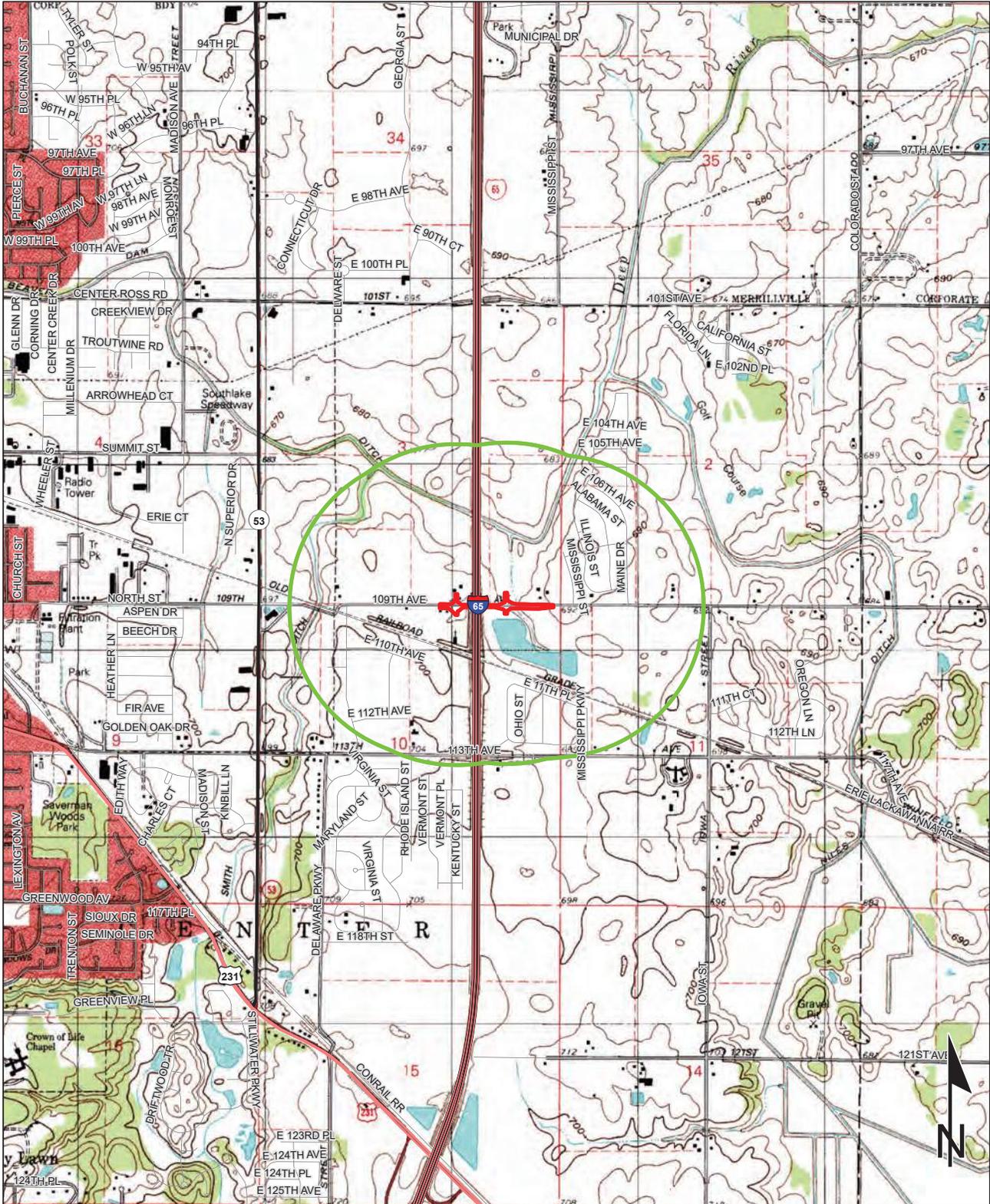
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

Red Flag Investigation - Site Location  
 I-65 at 109th Street  
 Des. No. 1801500, Interstate Access Project  
 Lake County, Indiana



Sources: 0.4 0.2 0 0.4 Miles  
**Non Orthophotography**  
 Data - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
 Map Projection: UTM Zone 16 N Map Datum: NAD83  
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

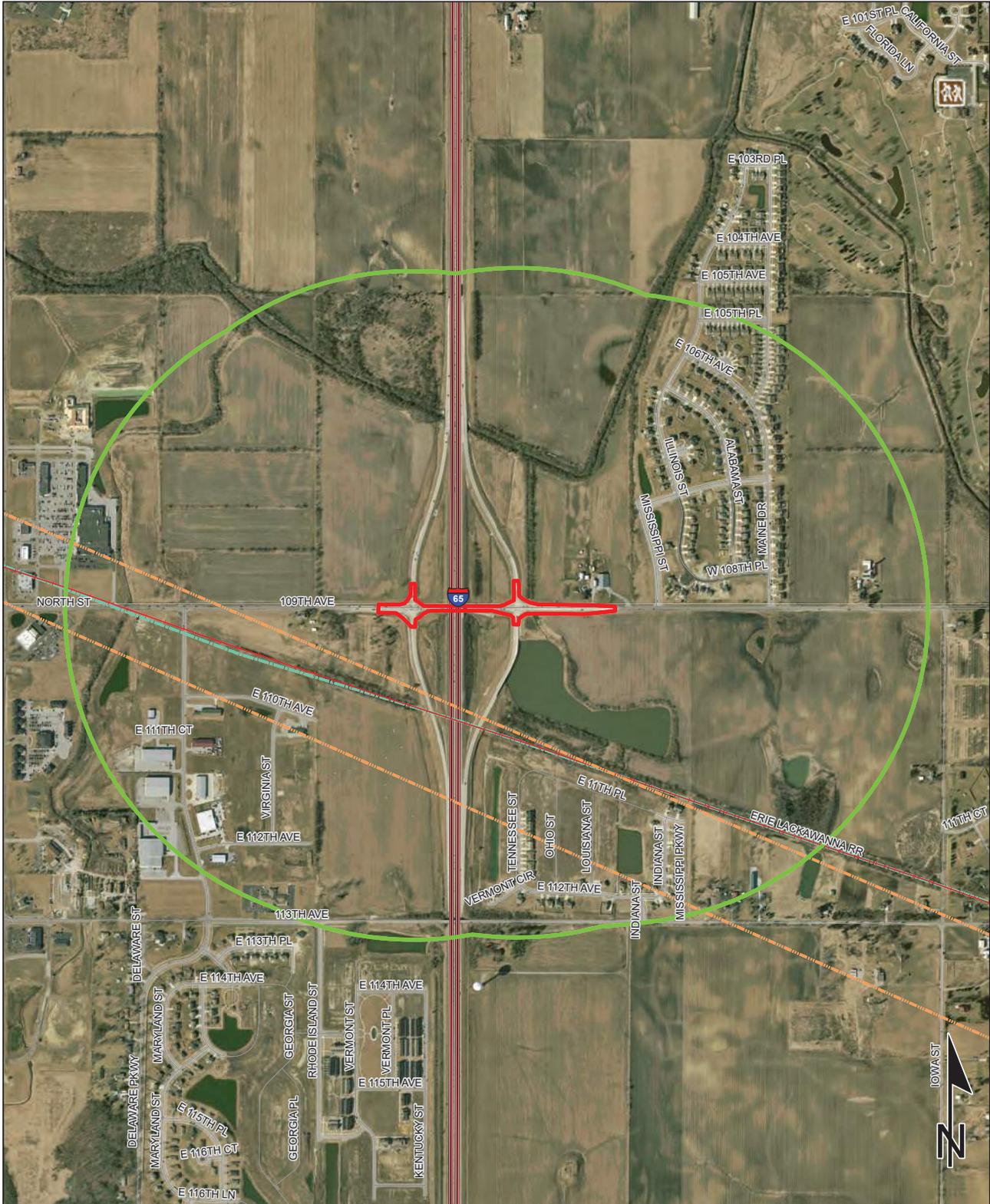
**CROWN POINT QUADRANGLE  
 INDIANA  
 7.5 MINUTE SERIES  
 (TOPOGRAPHIC)**

# Red Flag Investigation - Infrastructure

## I-65 at 109th Street

### Des. No. 1801500, Interstate Access Project

#### Lake County, Indiana



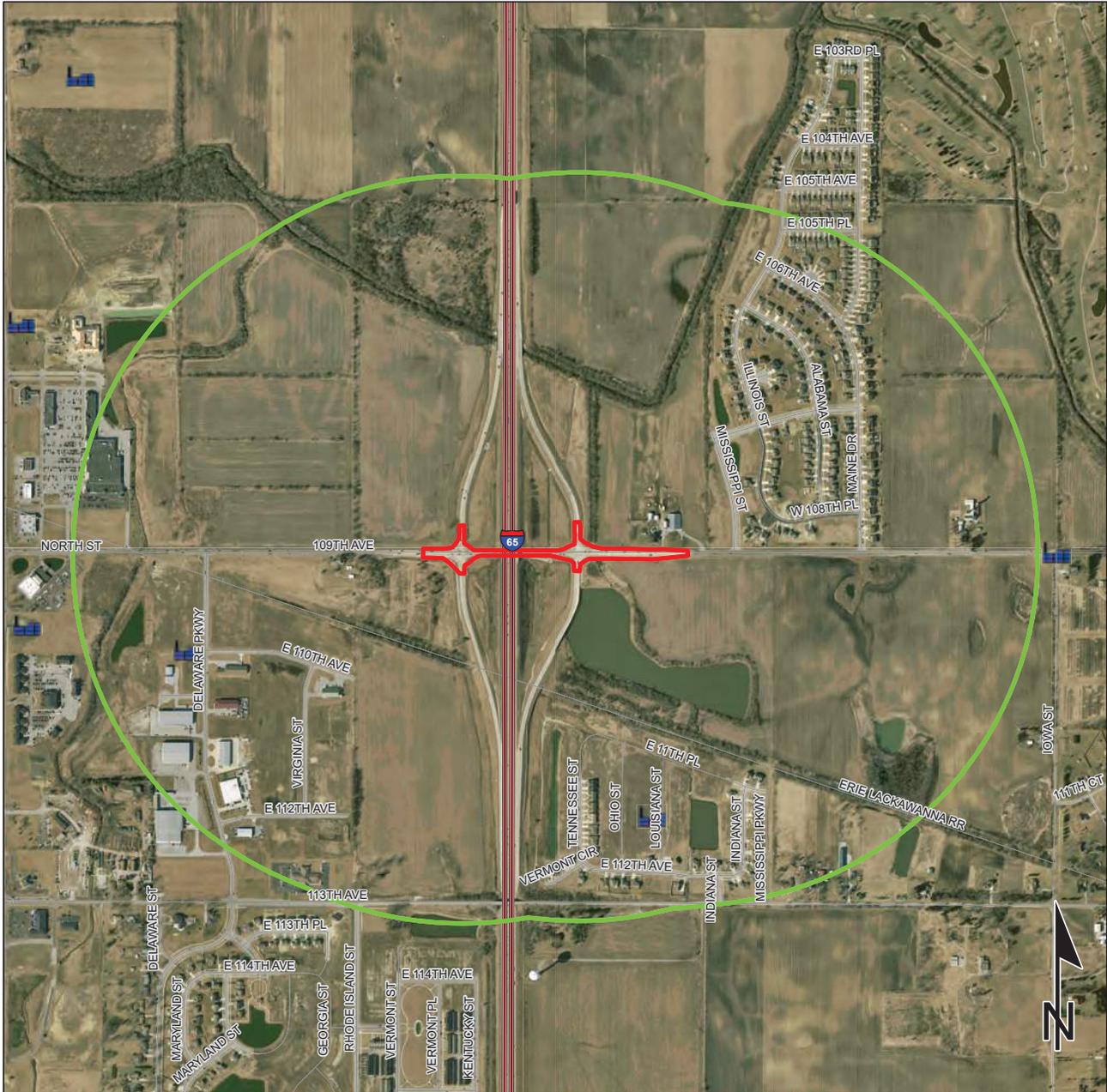
Sources: 0.15 0.07 0 0.15 Miles  
**Non Orthophotography**  
 Data - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
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	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road





**Red Flag Investigation - Hazardous Material Concerns**  
**I-65 at 109th Street**  
**Des. No. 1801500, Interstate Access Project**  
**Lake County, Indiana**



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				

0.15 0.07 0 0.15  
Miles

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Indiana County Endangered, Threatened and Rare Species List

County: Lake

Species Name	Common Name	FED	STATE	GRANK	SRANK
<b>Mollusk: Bivalvia (Mussels)</b>					
Plethobasus cyphus	Sheepnose	LE	SE	G3	S1
Venustaconcha ellipsiformis	Ellipse		SSC	G4	S2
<b>Insect: Coleoptera (Beetles)</b>					
Nicrophorus americanus	American Burying Beetle	LE	SX	G2G3	SX
<b>Insect: Homoptera</b>					
Bruchomorpha dorsata			SR	GNR	S2
Bruchomorpha extensa	The Long-nosed Elephant Hopper		SR	GNR	S2S3
Bruchomorpha oculata			SR	GNR	SNR
Chlorotettix fallax	A Leafhopper		SR	GNR	S2
Cicadula straminea			ST	GNR	S2
Cosmotettix bilineatus	Two-lined cosmotettix		ST	GNR	S1S2
Dorydiella kansana			ST	GNR	S1
Flexamia pyrops	The Long-nose Three-awn Leafhopper		SR	GNR	S1S3
Flexamia reflexus	Indiangrass Flexamia		ST	GNR	S2S3
Graminella mohri			SR	GNR	SNR
Laevincephalus acus			SR	GNR	S2S3
Limotettix divaricatus			ST	GNR	SNR
Mesamia nigradorsum	A Leafhopper		SR	GNR	S2S3
Paraphilaenus parallelus	A Spittle Bug		ST	GNR	S1
Paraphlepsius lobatus			ST	GNR	S1S2
Paraphlepsius maculosus	Peppered Paraphlepsius Leafhopper		ST	GNR	S1
Philaenarcys killa	Great Lakes dune spittlebug		SR	GNR	S2S3
Polyamia caperata	Little Bluestem Polyamia		SR	GNR	SNR
Polyamia herbida	The Prairie Panic Grass Leafhopper		ST	GNR	S1S3
Prairiana kansana	The Kansas Prairie Leafhopper		SE	GNR	S1S2
Prosapia ignipectus	Red-legged Spittle Bug		SR	G4	S2
<b>Insect: Hymenoptera</b>					
Bombus affinis	Rusty-patched Bumble Bee	LE	SE	G1	S1
Dolichoderus plagiatus				G5	S2
Formica glacialis				G5	S2
Lasius flavus				G5	S2
Lasius minutus				GNR	S1
Lasius speculiventris				GNR	S1
Myrmica lobifrons				G5	S1
Solenopsis texana texana				GNR	S1
<b>Insect: Lepidoptera (Butterflies &amp; Moths)</b>					
Acronicta dactylina	Fingered Dagger Moth		SR	G5	SNR

Indiana Natural Heritage Data Center  
Division of Nature Preserves  
Indiana Department of Natural Resources  
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting  
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list  
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank  
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Lake

Species Name	Common Name	FED	STATE	GRANK	SRANK
<i>Acronicta funeralis</i>	Funerary Dagger Moth		SR	G5	SNR
<i>Aethes patricia</i>			SE	G3G4	S1
<i>Agrotis stigmata</i>			ST	G4	S1S2
<i>Agrotis vetusta</i>	A Moth		SR	G5	S2
<i>Ancylis semiovana</i>			SR	GNR	S2S3
<i>Anepia capsularis</i>	The Starry Campion Capsule Moth		SR	G5	S1S2
<i>Apamea burgessi</i>	A Noctuid Moth		ST	G4	S1
<i>Apamea indocilis</i>	The spastic apamea			G5	S1S3
<i>Apamea nigrior</i>	Black-dashed Apamea		SR	G5	S2S3
<i>Archanara laeta</i>			ST	G4	S1S2
<i>Atrytonopsis hianna</i>	Dusted Skipper		ST	G4G5	S1S2
<i>Boloria selene myrina</i>	Silver-bordered Fritillary		ST	G5T5	S2
<i>Capis curvata</i>	A Noctuid Moth		ST	G5	S2S3
<i>Catocala antinympha</i>	The Sweet Fern Underwing		SE	G5	S1
<i>Catocala gracilis</i>	Graceful Underwing		SR	G5	S2S3
<i>Catocala praeclara</i>	Praeclara Underwing		SR	G5	S2S3
<i>Chortodes enervata</i>	The Many-lined Cordgrass Moth		ST	G4	S1
<i>Chortodes inquinata</i>	Tufted Sedge Moth		ST	GNR	S1S2
<i>Coenochroa illibella</i>	Dune Panic Grass Moth		SR	GNR	S2S3
<i>Crambus bidens</i>			SR	GNR	SNR
<i>Crambus murellus</i>	Prairie Sedge Moth		ST	GNR	S1
<i>Croesia semipurpurana</i>			SR	GNR	SNR
<i>Cyclophora pendulinaria</i>	Sweetfern Geometer		SR	G5	SNR
<i>Cyrcia inopinatus</i>	The Unexpected Milkweed Moth		SR	G4	S2S3
<i>Dichomeris aleatrix</i>	Aleatrix dichomeris			GNR	S1S2
<i>Erynnis lucilius</i>	Columbine Duskywing		ST	G5	S1
<i>Erynnis martialis</i>	Mottled Duskywing		ST	G3	S2S3
<i>Erynnis persius persius</i>	Persius Duskywing		SE	G5T1T3	S1S2
<i>Euchloe olympia</i>	Olympia Marble		ST	G5	S2
<i>Eucrotopocnemis fimbriaris</i>	A Noctuid Moth		ST	G4	S1
<i>Eucosma albiguttana</i>			SR	GNR	SNR
<i>Eucosma bilineana</i>			SR	GNR	S1S2
<i>Eucosma bipunctella</i>	A Moth		SR	GNR	S1S2
<i>Eucosma fulminana</i>			SR	GNR	S1S2
<i>Eucosma giganteana</i>			SR	GNR	S1S2
<i>Eucosma umbrastriana</i>			SR	GNR	SNR
<i>Euphydryas phaeton</i>	Baltimore		SR	G5	S2
<i>Euphyes bimacula</i>	Two-spotted Skipper		ST	G4	S2
<i>Euphyes dion</i>	Dion Skipper		SR	G4	S2S3

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Indiana County Endangered, Threatened and Rare Species List

County: Lake

Species Name	Common Name	FED	STATE	GRANK	SRANK
Fagitana littera	The Marsh Fern Moth		ST	G4	S1S2
Faronta rubripennis	The Pine Streak		ST	G3G4	S1
Gabara subnivosella	A Noctuid Moth		SR	G4	S1S2
Glaucopsyche lygdamus couperi	Silvery Blue		SE	G5T5	S1
Grammia figurata	The Figured Grammia		SR	G5	S2S3
Grammia phyllira	The Sand Barrens Grammia		SR	G4	S2S3
Grammia virguncula			SR	G5	S1S2
Hadena ectypa	The Starry Campion Moth		ST	G3G4	S1S3
Hemaris gracilis	The Blueberry Clearwing Sphinx		SR	G3G4	S1S2
Hesperia leonardus	Leonard's Skipper		SR	G5	S2
Hesperia ottoe	Ottoe Skipper		SE	G3G4	S1
Hypenodes caducus	Large Hypenodes		SR	GNR	SNR
Hyperaeschra georgica	A Prominent Moth			G5	S2
Iodopepla u-album	A Noctuid Moth		SR	G5	S2
Lemmeria digitalis	A Noctuid Moth		SR	G4	S1S2
Lesmone detrahens	A Moth		SR	G5	S2
Leucania inermis	A Moth		SR	G5	S2S3
Leucania linita	Salt Marsh Wainscot		SR	GNR	S2
Leucania multilinea			SR	G5	S1S2
Loxagrotis acclivis	A Noctuid Moth		ST	G4G5	S2
Loxagrotis grotei	Grote's Black-tipped Quaker		ST	G4	S2
Lycaeides melissa samuelis	Karner Blue	LE	SE	G5T2	S1
Lycaena dione	Gray Copper			G5	S1
Lycaena helloides	Purplish Copper		SR	G5	S2S4
Lycaena xanthoides	Great Copper		SE	G4	S1
Macaria multilineata	Many-lined Angle		SR	G4	SNR
Macrochilo absorptalis	A Moth		SR	G4G5	S2S3
Macrochilo hypocriticalis	A Noctuid Moth		SR	G4	S2
Macrochilo louisiana			ST	G4	S1S2
Melanomma auricinctaria	Huckleberry Eye-spot Moth		SR	G4	S2S3
Melipotis jucunda	A Noctuid Moth		SR	G5	S1S3
Meropleon ambifuscum	Newman's Brocade		ST	G3G4	S1S2
Meropleon diversicolor	A Noctuid Moth		SR	G5	S2S3
Metanema determinata	Dark Metanema		SR	GNR	SNR
Metanema inatomaria	Pale Metanema		SR	G5	SNR
Metarranthis apiciaria	Barrens Metarranthis Moth		SE	G1G3	SH
Nola cilicoides			SR	G5	SNR
Notodontia scitipennis	A Notodontid Moth			G5	S1S2
Odontotia elegans	Elegant Prominent		SR	G5	S1S2
Oligia obtusa	A Noctuid Moth		SE	G4	S1

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Indiana County Endangered, Threatened and Rare Species List

County: Lake

Species Name	Common Name	FED	STATE	GRANK	SRANK
<i>Oncocnemis riparia</i>	The Dune Oncocnemis Moth		ST	G4	S1S2
<i>Pangrapta decoralis</i>	The Multicolored Huckleberry Moth		ST	G5	S2
<i>Papaipema beeriana</i>	Beer's Blazing Star Borer Moth		ST	G2G3	S1S3
<i>Papaipema cerina</i>	Golden Borer Moth		ST	G2G4	S1
<i>Papaipema leucostigma</i>	Columbine Borer		ST	G4G5	S1S2
<i>Papaipema lysimachiae</i>	The St. John'Swort Borer Moth		SR	G4G5	S1S3
<i>Papaipema maritima</i>	The Giant Sunflower Borer Moth		ST	G3	S2
<i>Papaipema pterisii</i>	Bracken Borer Moth		WL	G5	SNR
<i>Papaipema rigida</i>	A Borer Moth		SR	G4G5	S2S3
<i>Papaipema sciata</i>	The Culver's Root Borer		ST	G3	S1S2
<i>Papaipema silphii</i>	Silphium Borer Moth		ST	G3G4	S2
<i>Papaipema speciosissima</i>	The Royal Fern Borer Moth		ST	G4	S2S3
<i>Parasa indetermina</i>	A Moth		SR	G4	S1S2
<i>Peoria gemmatella</i>	Gemmed Cordgrass Borer		SR	GNR	S1
<i>Peoria tetradella</i>			SR	GNR	SNR
<i>Phaneta ochroterminana</i>			SR	GNR	SNR
<i>Phaneta olivaceana</i>			SR	GNR	S1S2
<i>Phaneta striatana</i>			SR	GNR	SNR
<i>Phytometra ernestinana</i>	Ernestine's Moth		SE	G4	S1
<i>Platyperigea meralis</i>	The Rare Sand Quaker		ST	G5	S2
<i>Poanes massasoit</i>	Mulberry Wing Skipper		SR	G4	S3
<i>Poanes viator viator</i>	Big Broad-winged Skipper		ST	G5T4	S2
<i>Polites mystic</i>	Long Dash Skipper		SR	G5	S4
<i>Polygonia progne</i>	Gray Comma		SR	G5	S2
<i>Problema byssus</i>	Bunchgrass Skipper		ST	G3G4	S2
<i>Protorthodes incincta</i>	Saturn quaker		SR	GNR	S2
<i>Pygarctia spraguei</i>	Sprague's Pygartic		SR	G5	S1S2
<i>Pyrausta laticlavata</i>	The Southern Purple Mint Moth		SR	GNR	S1S2
<i>Pyrrhia aurantiago</i>	False-foxglove Sun Moth		ST	G3G4	S1S2
<i>Resapamea stipata</i>	The Four-lined Cordgrass Borer		SE	G4	S1
<i>Satyrodes eurydice</i>	Eyed Brown		SR	G5	S2S3
<i>Schinia indiana</i>	Phlox Moth		SE	G2G4	S1
<i>Schinia sanguinea</i>	Bleeding Flower Moth			G4	S2S3
<i>Schinia septentrionalis</i>	A Noctuid Moth		SR	G3G4	S2S3
<i>Scirpophaga perstrialis</i>			SR	GNR	SNR
<i>Semiothisa eremiata</i>	The Goat's Rue Looper		SR	G4	S2S3
<i>Semiothisa mellistrigata</i>	A Geometrid Moth		SR	G5	SNR
<i>Sitochroa dasconalis</i>	Pearly Indigo Borer		ST	GNR	S1S2
<i>Spartiniphaga includens</i>	The Included Cordgrass Borer		ST	G4	S1

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Indiana County Endangered, Threatened and Rare Species List

County: Lake

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Spartiniphaga inops	Spartina Borer Moth		SR	G3G4	S2S3
Spartiniphaga panatela	Northern Cordgrass Borer		ST	GNR	S1
Speyeria aphrodite	Aphrodite Fritillary		WL	G5	S3
Speyeria idalia	Regal Fritillary	C	SE	G3	S1
Sphinx luscitiosa	The Luscious Willow Sphinx		SR	G4G5	S1S2
Spilosoma latipennis	The Red-legged Tussock Moth		SR	G4	S2S3
Tarachidia binocula	Prairie tarachidia			GNR	S1S2
Thorybes pylades	Northern Cloudywing		SR	G5	S2S3
Tricholita notata	Marked Noctuid		ST	G5	S1S2
Trichosilia manifesta	The Record Keeper Moth		SR	G4	S3S4
Zomaria interruptolineana	Broken-lined Zomaria		SR	GNR	SNR
<b>Insect: Odonata (Dragonflies &amp; Damselflies)</b>					
Somatochlora hineana	Hine's Emerald	LE	SX	G2G3	SX
Sympetrum semicinctum	Band-winged Meadowhawk		SR	G5	S2S3
<b>Insect: Orthoptera</b>					
Chloealtis conspersa	Sprinkled Locust		SR	G5	S2S3
Conocephalus saltans	Prairie Meadow Katydid		SR	G5	S1S2
Hesperotettix viridis pratensis	A Grasshopper		SR	G5T5	S1S2
Melanoplus fasciatus	Huckleberry Spur-throat Grasshopper		SR	G5	S2
Melanoplus keeleri luridus	Keeler's Spur-throated Grasshopper		SR	G5T5	S1S2
Neoconocephalus nebrascensis	Nebraska Conehead		SR	GNR	S1S2
Orphulella pelidna	Spotted-wing Grasshopper		SR	G5	S1S2
Pardalophora phoenicoptera	Orange-winged Grasshopper		SR	G5	S1S2
Paroxya atlantica	A Grasshopper		ST	GU	S1S2
Phoetaliotes nebrascensis	Large-headed Grasshopper		ST	G5	S1
Psinidia fenestralis	Sand Locust		SR	G5	S1S2
Trimerotropis maritima	Seaside Grasshopper		ST	G5	S2
<b>Fish</b>					
Acipenser fulvescens	Lake Sturgeon		SE	G3G4	S1
<b>Amphibian</b>					
Acris blanchardi	Northern Cricket Frog		SSC	G5	S4
Ambystoma laterale	Blue-spotted Salamander		SSC	G5	S2
Lithobates pipiens	Northern Leopard Frog		SSC	G5	S2
Necturus maculosus	Common mudpuppy		SSC	G5	S2
<b>Reptile</b>					
Clemmys guttata	Spotted Turtle	C	SE	G5	S2
Clonophis kirtlandii	Kirtland's Snake	C	SE	G2	S2
Emydoidea blandingii	Blanding's Turtle	C	SE	G4	S2

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County: Lake

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<i>Opheodrys vernalis</i>	Smooth Green Snake		SE	G5	S2	
<i>Sistrurus catenatus catenatus</i>	Eastern Massasauga	LT	SE	G3	S2	
<i>Terrapene ornata ornata</i>	Ornate Box Turtle		SE	G5T5	S1	
<i>Thamnophis proximus proximus</i>	Western Ribbon Snake		SSC	G5T5	S3	
<b>Bird</b>						
<i>Ammodramus henslowii</i>	Henslow's Sparrow		SE	G4	S3B	
<i>Anas clypeata</i>	Northern Shoveler			G5	SHB	
<i>Ardea alba</i>	Great Egret		SSC	G5	S1B	
<i>Bartramia longicauda</i>	Upland Sandpiper		SE	G5	S3B	
<i>Botaurus lentiginosus</i>	American Bittern		SE	G5	S2B	
<i>Buteo lineatus</i>	Red-shouldered Hawk		SSC	G5	S3	
<i>Certhia americana</i>	Brown Creeper			G5	S2B	
<i>Charadrius melodus</i>	Piping Plover	LE	SE	G3	SXB	
<i>Chlidonias niger</i>	Black Tern		SE	G4G5	S1B	
<i>Cistothorus palustris</i>	Marsh Wren		SE	G5	S3B	
<i>Cistothorus platensis</i>	Sedge Wren		SE	G5	S3B	
<i>Cygnus buccinator</i>	Trumpeter Swan		SE	G4	S1B	
<i>Euphagus cyanocephalus</i>	Brewer's Blackbird			G5	SHB,S1N	
<i>Falco peregrinus</i>	Peregrine Falcon		SSC	G4	S2B	
<i>Gallinula galeata</i>	Common gallinule		SE	G5	S3B	
<i>Grus canadensis</i>	Sandhill Crane		SSC	G5	S2B,S1N	
<i>Haliaeetus leucocephalus</i>	Bald Eagle		SSC	G5	S2	
<i>Hydroprogne caspia</i>	Caspian Tern			G5	S1B	
<i>Ixobrychus exilis</i>	Least Bittern		SE	G5	S3B	
<i>Lanius ludovicianus</i>	Loggerhead Shrike		SE	G4	S3B	
<i>Laterallus jamaicensis</i>	Black Rail		SE	G3G4	SHB	
<i>Nyctanassa violacea</i>	Yellow-crowned Night-heron		SE	G5	S2B	
<i>Nycticorax nycticorax</i>	Black-crowned Night-heron		SE	G5	S1B	
<i>Pandion haliaetus</i>	Osprey		SE	G5	S1B	
<i>Phalaropus tricolor</i>	Wilson's Phalarope		SSC	G5	SHB	
<i>Rallus elegans</i>	King Rail		SE	G4	S1B	
<i>Rallus limicola</i>	Virginia Rail		SE	G5	S3B	
<i>Tyto alba</i>	Barn Owl		SE	G5	S2	
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed Blackbird		SE	G5	S1B	
<b>Mammal</b>						
<i>Lasiurus borealis</i>	Eastern Red Bat			SSC	G3G4	S4
<i>Lasiurus cinereus</i>	Hoary Bat			SSC	G3G4	S4
<i>Myotis septentrionalis</i>	Northern Long Eared Bat	LT	SSC	G1G2	S2S3	
<i>Reithrodontomys megalotis</i>	Western Harvest Mouse			G5	S2	
<i>Spermophilus franklinii</i>	Franklin's Ground Squirrel		SE	G5	S2	

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Taxidea taxus	American Badger		SSC	G5	S2
<b>Vascular Plant</b>					
Agalinis auriculata	Earleaf Foxglove		ST	G3	S1
Agalinis skinneriana	Pale False Foxglove		ST	G3G4	S1
Alnus incana ssp. rugosa	Speckled Alder		WL	G5T5	S3
Amelanchier humilis	Running Serviceberry		SE	G5	S1
Androsace occidentalis	Western Rockjasmine		ST	G5	S2
Aralia hispida	Bristly Sarsaparilla		SE	G5	S1
Arctostaphylos uva-ursi	Bearberry		SR	G5	S2
Arethusa bulbosa	Swamp-pink		SX	G5	SX
Aristida intermedia	Slim-spike Three-awn Grass		SR	GNR	S2
Aristida tuberculosa	Seabeach Needlegrass		SR	G5	S2
Armoracia aquatica	Lake Cress		SE	G4?	S1
Asclepias meadii	Mead's Milkweed	LT	SRE	G2	SX
Aureolaria grandiflora var. pulchra	Large-flower False-foxglove		SX	G4G5T4T5	SX
Baptisia tinctoria	Yellow Wild-indigo		WL	G5	S3
Betula papyrifera	Paper Birch		WL	G5	S3
Betula populifolia	Gray Birch		SE	G5	S1
Bidens beckii	Beck Water-marigold		ST	G5	S1
Botrychium matricariifolium	Chamomile Grape-fern		SR	G5	S2
Botrychium simplex	Least Grape-fern		SE	G5	S1
Buchnera americana	Bluehearts		SE	G5?	S1
Calopogon oklahomensis	Oklahoma grass-pink		SE	G3	SH
Carex aurea	Golden-fruited Sedge		SR	G5	S2
Carex bebbii	Bebb's Sedge		ST	G5	S2
Carex brunnescens	Brownish Sedge		SE	G5	S1
Carex conoidea	Prairie Gray Sedge		ST	G5	S1
Carex crawei	Crawe Sedge		ST	G5	S2
Carex cumulata	Clustered Sedge		SE	G4G5	S1
Carex eburnea	Ebony Sedge		SR	G5	S2
Carex echinata	Little Prickly Sedge		SE	G5	S1
Carex garberi	Elk Sedge		ST	G5	S2
Carex limosa	Mud Sedge		SE	G5	S1
Carex richardsonii	Richardson Sedge		ST	G5	S1
Carex seorsa	Weak Stellate Sedge		SR	G5	S2
Carex straminea	Straw Sedge		ST	G5	S2
Carex trichocarpa	Hairy-fruit Sedge		WL	G4	S3
Catalpa speciosa	Northern Catalpa		SR	G4?	S2
Ceanothus herbaceus	Prairie Redroot		SE	G5	S1
Cirsium hillii	Hill's Thistle		SE	G3	S1

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<i>Cirsium pitcheri</i>	Dune Thistle	LT	ST	G2G3	S2
<i>Clintonia borealis</i>	Clinton Lily		SE	G5	S1
<i>Coeloglossum viride</i> var. <i>virescens</i>	Long-bract Green Orchis		ST	G5T5	S2
<i>Cornus amomum</i> ssp. <i>amomum</i>	Silky Dogwood		SE	G5T5	S1
<i>Cornus canadensis</i>	Bunchberry		SE	G5	S1
<i>Cornus rugosa</i>	Roundleaf Dogwood		SR	G5	S2
<i>Corydalis sempervirens</i>	Pale Corydalis		ST	G5	S1
<i>Cyperus dentatus</i>	Toothed Sedge		SE	G4	S1
<i>Cypripedium calceolus</i> var. <i>parviflorum</i>	Small Yellow Lady's-slipper		SR	G5	S2
<i>Cypripedium candidum</i>	Small White Lady's-slipper		WL	G4	S2
<i>Dichanthelium boreale</i>	Northern Witchgrass		SR	G5	S2
<i>Dichanthelium sabulorum</i> var. <i>thinium</i>	Hemlock Panic-grass		SR	G5T5	S2
<i>Diervilla lonicera</i>	Northern Bush-honeysuckle		SR	G5	S2
<i>Drosera intermedia</i>	Spoon-leaved Sundew		SR	G5	S2
<i>Eleocharis geniculata</i>	Capitate Spike-rush		ST	G5	S2
<i>Eleocharis melanocarpa</i>	Black-fruited Spike-rush		ST	G4	S2
<i>Eleocharis wolfii</i>	Wolf Spikerush		SR	G3G5	S2
<i>Epigaea repens</i>	Trailing Arbutus		WL	G5	S3
<i>Epilobium angustifolium</i>	Fireweed		SE	G5	S1
<i>Epilobium ciliatum</i>	Hairy Willow-herb		SX	G5	SX
<i>Equisetum variegatum</i>	Variegated Horsetail		SE	G5	S1
<i>Eriophorum angustifolium</i>	Narrow-leaved Cotton-grass		SR	G5	S2
<i>Eriophorum gracile</i>	Slender Cotton-grass		ST	G5	S2
<i>Eurybia furcata</i>	Forked Aster		SR	G3	S2
<i>Fimbristylis puberula</i>	Carolina Fimbry		SE	G5	S1
<i>Gentiana alba</i>	Yellow Gentian		SR	G4	S2
<i>Gentiana puberulenta</i>	Downy Gentian		ST	G4G5	S2
<i>Geranium bicknellii</i>	Bicknell Northern Crane's-bill		SE	G5	S1
<i>Glyceria borealis</i>	Small Floating Manna-grass		SE	G5	S1
<i>Hemicarpha drummondii</i>	Drummond Hemicarpha		SE	G4G5	S1
<i>Hudsonia tomentosa</i>	Sand-heather		ST	G5	S2
<i>Hydrastis canadensis</i>	Golden Seal		WL	G3G4	S3
<i>Hypericum adpressum</i>	Creeping St. John's-wort		SE	G3	S1
<i>Hypericum kalmianum</i>	Kalm St. John's-wort		WL	G4	S3
<i>Juglans cinerea</i>	Butternut		WL	G4	S3
<i>Juncus articulatus</i>	Jointed Rush		SE	G5	S1
<i>Juncus balticus</i> var. <i>littoralis</i>	Baltic Rush		SR	G5T5	S2
<i>Juncus pelocarpus</i>	Brown-fruited Rush		SE	G5	S2
<i>Juncus scirpoides</i>	Scirpus-like Rush		ST	G5	S2
<i>Juniperus communis</i>	Ground Juniper		SR	G5	S2

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Lathyrus venosus	Smooth Veiny Pea		ST	G5	S2
Lechea stricta	Upright Pinweed		SX	G4?	SX
Liatris pycnostachya	Cattail Gay-feather		ST	G5	S2
Linnaea borealis	Twinflower		SX	G5	SX
Linum sulcatum	Grooved Yellow Flax		SR	G5	S2
Liparis loeselii	Loesel's Twayblade		WL	G5	S3
Ludwigia sphaerocarpa	Globe-fruited False-loosestrife		SE	G5	S1
Lycopodiella inundata	Northern Bog Clubmoss		SE	G5	S1
Malaxis unifolia	Green Adder's-mouth Orchid		SE	G5	S1
Matteuccia struthiopteris	Ostrich Fern		SR	G5	S2
Melampyrum lineare	American Cow-wheat		SR	G5	S2
Mikania scandens	Climbing Hempweed		SE	G5	S1
Minuartia michauxii var. michauxii	Michaux's Stitchwort		SR	G5T5	S2
Myosotis laxa	Smaller Forget-me-not		ST	G5	S1
Myriophyllum verticillatum	Whorled Water-milfoil		SR	G5	S2
Oenothera perennis	Small Sundrops		SR	G5	S2
Oligoneuron album	Prairie Goldenrod		SR	G5	S2
Orobanche fasciculata	Clustered Broomrape		SE	G4G5	S1
Orthilia secunda	One-sided Wintergreen		SX	G5	SX
Panax quinquefolius	American Ginseng		WL	G3G4	S3
Panicum leibergii	Leiberg's Witchgrass		ST	G4	S2
Perideridia americana	Eastern Eulophus		SE	G4	S1
Pinus banksiana	Jack Pine		SR	G5	S2
Pinus strobus	Eastern White Pine		SR	G5	S2
Plantago cordata	Heart-leaved Plantain		SE	G4	S1
Platanthera ciliaris	Yellow-fringe Orchis		SE	G5	S1
Platanthera flava var. herbiola	Pale Green Orchis		WL	G4?T4Q	S3
Platanthera hookeri	Hooker Orchis		SX	G4	SX
Platanthera hyperborea	Leafy Northern Green Orchis		ST	G5	S2
Platanthera lacera	Green-fringe Orchis		WL	G5	S3
Platanthera leucophaea	Prairie White-fringed Orchid	LT	SE	G2G3	S1
Platanthera psycodes	Small Purple-fringe Orchis		SR	G5	S2
Polygonella articulata	Eastern Jointweed		SR	G5	S2
Polygonum careyi	Carey's Smartweed		ST	G4	S2
Polytaenia nuttallii	Prairie Parsley		SE	G5	S1
Populus balsamifera	Balsam Poplar		SE	G5	S1
Potamogeton pulcher	Spotted Pondweed		SE	G5	S1
Potamogeton pusillus	Slender Pondweed		WL	G5	S2
Potamogeton richardsonii	Redheadgrass		SR	G5	S2

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Division of Nature Preserves  
Indiana Department of Natural Resources  
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Indiana County Endangered, Threatened and Rare Species List

County: Lake

Species Name	Common Name	FED	STATE	GRANK	SRANK
Potamogeton robbinsii	Flatleaf Pondweed		SR	G5	S2
Potamogeton strictifolius	Straight-leaf Pondweed		ST	G5	S1
Potentilla anserina	Silverweed		ST	G5	S2
Prenanthes aspera	Rough Rattlesnake-root		SR	G4?	S2
Prunus pensylvanica	Fire Cherry		SR	G5	S2
Pyrola americana	American Wintergreen		SR	G5	S2
Rhus aromatica var. arenaria	Beach Sumac		SR	G5T3Q	S2
Rhynchospora macrostachya	Tall Beaked-rush		SR	G4	S2
Rhynchospora recognita	Globe Beaked-rush		SE	G5?	S1
Rhynchospora scirpoides	Long-beaked Bulrush		ST	G4	S2
Rubus enslenii	Southern Dewberry		SE	G4G5Q	S1
Rubus setosus	Small Bristleberry		SE	G5	S1
Salix cordata	Heartleaf Willow		ST	G4	S2
Satureja glabella var. angustifolia	Calamint		SE	G5	S1
Schoenoplectus hallii	Hall's Bulrush	C	SE	G2G3	S1
Schoenoplectus smithii	Smith's Bulrush		SE	G5?	S1
Schoenoplectus torreyi	Torrey's Bulrush		SE	G5?	S1
Scirpus subterminalis	Water Bulrush		SR	G5	S2
Scleria reticularis	Reticulated Nutrush		ST	G4	S2
Selaginella apoda	Meadow Spike-moss		WL	G5	S1
Selaginella rupestris	Ledge Spike-moss		ST	G5	S2
Shepherdia canadensis	Canada Buffalo-berry		SX	G5	SX
Sisyrinchium montanum	Strict Blue-eyed-grass		SE	G5	S1
Solidago simplex var. gillmanii	Sticky Goldenrod		ST	G5T3?	S2
Spiranthes lucida	Shining Ladies'-tresses		SR	G4	S2
Spiranthes magnicamporum	Great Plains Ladies'-tresses		SE	G3G4	S1
Spiranthes ovalis	Lesser Ladies'-tresses		WL	G5?	S3
Strophostyles leiosperma	Slick-seed Wild-bean		ST	G5	S2
Styrax americanus	American Snowbell		WL	G5	S3
Symphotrichum boreale	Rushlike Aster		SR	G5	S2
Symphotrichum sericeum	Western Silvery Aster		SR	G5	S2
Talinum rugospermum	Prairie Fame-flower		ST	G3G4	S2
Thuja occidentalis	Northern White Cedar		SE	G5	S1
Tofieldia glutinosa	False Asphodel		SR	G5	S2
Trichostema dichotomum	Forked Bluecurl		SR	G5	S2
Triglochin palustris	Marsh Arrow-grass		SR	G5	S2
Utricularia cornuta	Horned Bladderwort		ST	G5	S2
Utricularia intermedia	Flatleaf Bladderwort		WL	G5	S3
Utricularia minor	Lesser Bladderwort		ST	G5	S1
Utricularia purpurea	Purple Bladderwort		SR	G5	S2

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Indiana County Endangered, Threatened and Rare Species List

County: Lake

Species Name	Common Name	FED	STATE	GRANK	SRANK
Utricularia resupinata	Northeastern Bladderwort		SE	G4	S1
Utricularia subulata	Zigzag Bladderwort		ST	G5	S2
Vaccinium myrtilloides	Velvetleaf Blueberry		SE	G5	S1
Valerianella chenopodiifolia	Goose-foot Corn-salad		SE	G4	S1
Viburnum opulus var. americanum	Highbush-cranberry		SE	G5T5	S1
Viola pedatifida	Prairie Violet		ST	G5	S2
Zannichellia palustris	Horned Pondweed		SR	G5	S2
<b>High Quality Natural Community</b>					
Forest - floodplain wet	Wet Floodplain Forest		SG	G3?	S3
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest		SG	G3?	S3
Forest - upland dry Northwestern Morainal	Northwestern Morainal Dry Upland Forest			GNR	S1
Forest - upland dry-mesic Northwestern Morainal	Northwestern Morainal Dry-mesic Upland Forest			GNR	S1
Forest - upland mesic Northwestern Morainal	Northwestern Morainal Mesic Upland Forest			GNR	S1
Lake - pond	Pond		SG	GNR	SNR
Prairie - dry-mesic	Dry-mesic Prairie		SG	G3	S2
Prairie - mesic	Mesic Prairie		SG	G2	S2
Prairie - sand dry	Dry Sand Prairie		SG	G3	S2
Prairie - sand dry-mesic	Dry-mesic Sand Prairie		SG	G3	S3
Prairie - sand mesic	Mesic Sand Prairie		SG	GNR	SNR
Prairie - sand wet	Wet Sand Prairie		SG	G3	S3
Prairie - sand wet-mesic	Wet-mesic Sand Prairie		SG	G1?	S2
Prairie - wet	Wet Prairie		SG	G3	S1
Primary - dune lake	Foredune		SG	G3	S1
Savanna - mesic	Mesic Savanna		SG	GNR	SNR
Savanna - sand dry	Dry Sand Savanna		SG	G2?	S2
Savanna - sand dry-mesic	Dry-mesic Sand Savanna		SG	G2?	S2S3
Savanna - sand mesic	Mesic Sand Savanna		SG	GNR	SNR
Wetland - fen	Fen		SG	G3	S3
Wetland - marsh	Marsh		SG	GU	S4
Wetland - meadow sedge	Sedge Meadow		SG	G3?	S1
Wetland - panne	Panne		SG	G2	S1
Wetland - swamp shrub	Shrub Swamp		SG	GU	S2
<b>Other Significant Feature</b>					
Migratory Bird Concentration Area	Migratory Bird Concentration Site		SG	G3	SNR

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# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N642  
Indianapolis, Indiana 46204

PHONE: (317) 232-5113  
FAX: (317) 233-4929

**Eric Holcomb, Governor**  
**Joe McGuinness,**  
**Commissioner**

Date: April 16, 2020

To: Site Assessment & Management  
Environmental Policy Office - Environmental Services Division  
Indiana Department of Transportation  
100 N Senate Avenue, Room N642  
Indianapolis, IN 46204

From: Christian Radcliff  
Green 3, LLC  
1104 Prospect Street  
Indianapolis, Indiana 46203  
[christian@green3studio.com](mailto:christian@green3studio.com)

Re: **RED FLAG INVESTIGATION ADDENDUM**  
DES #1801500, State Project  
Interstate Access Project  
I-65 at 109<sup>th</sup> Avenue  
Lake County, Indiana

A review of the original RFI signed on May 28, 2019, for the above DES # did not indicate substantive changes have occurred within the 0.5 mile radius and project area limits that will have an impact to the project. The original scope included construction of two roundabouts, one at the northbound ramps and one at the southbound ramps. The roundabouts would retain the existing three lane cross section. The existing drainage culvert under 109<sup>th</sup> Avenue on the east side of the interchange would be extended north and south to accommodate the pavement widening. New storm sewers and drainage inlets will be installed to convey storm water. The updated scope includes expanding the roadway to provide a four-lane cross section and a pedestrian trail. The fourth lane is proposed to be constructed through the north span of the bridge carrying I-65 over 109<sup>th</sup> Avenue. The pedestrian trail will run through the southern span of the bridge. The existing slopewalls of the bridge carrying I-65 over 109<sup>th</sup> Avenue will be removed and soil nail walls will be used to support to existing bridge. The project limits will extend approximately 425 feet west of the previous scope project limits and it is anticipated that more than 0.5 acre of permanent right of way will be required to complete the project. The following features and/or items were not detailed in the original RFI document but will not have an impact on the project area or require additional coordination.

1. Water Resources –
  - a. NWI – Wetlands: Two (2) NWI – wetlands were identified in the new 0.5 mile search radius that were not identified in the original report. The nearest of these wetlands is approximately 0.42 mile west of the project area. No impact is expected.
  - b. Lakes: Two (2) lakes were identified in the new 0.5 mile search radius that were not identified in the original report. The nearest of these lakes is approximately 0.42 mile west of the project area. No impact is expected.
2. Hazardous Material Concerns –

- a. NPDES Facilities: Two (2) NPDES facilities were identified in the new 0.5 mile search radius that were not identified in the original report. The Coyne Veterinary Clinic and Orchard View are approximately 0.49 mile west and east of the project area, respectively. No impact is expected.
- 3. Ecological Information: A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project is located east of the City of Crown Point. The primary land use in the vicinity of the project area is maintained interchange, residential beyond the eastern project terminus, and commercial beyond the western project terminus. The April 15, 2019 inspection report for bridges I65-249-04900 BNBL and BSBL indicated that no evidence of bats was seen or heard on the bridges. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

Nicole  
Fohey-  
Breting

Digitally signed by  
Nicole Fohey-Breting  
Date: 2020.04.16  
19:21:33 -04'00'

INDOT Environmental Services concurrence:

\_\_\_\_\_  
(Signature)

Prepared by:  
Christian Radcliff  
Ecologist  
Green 3, LLC

**Graphics:**

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: YES

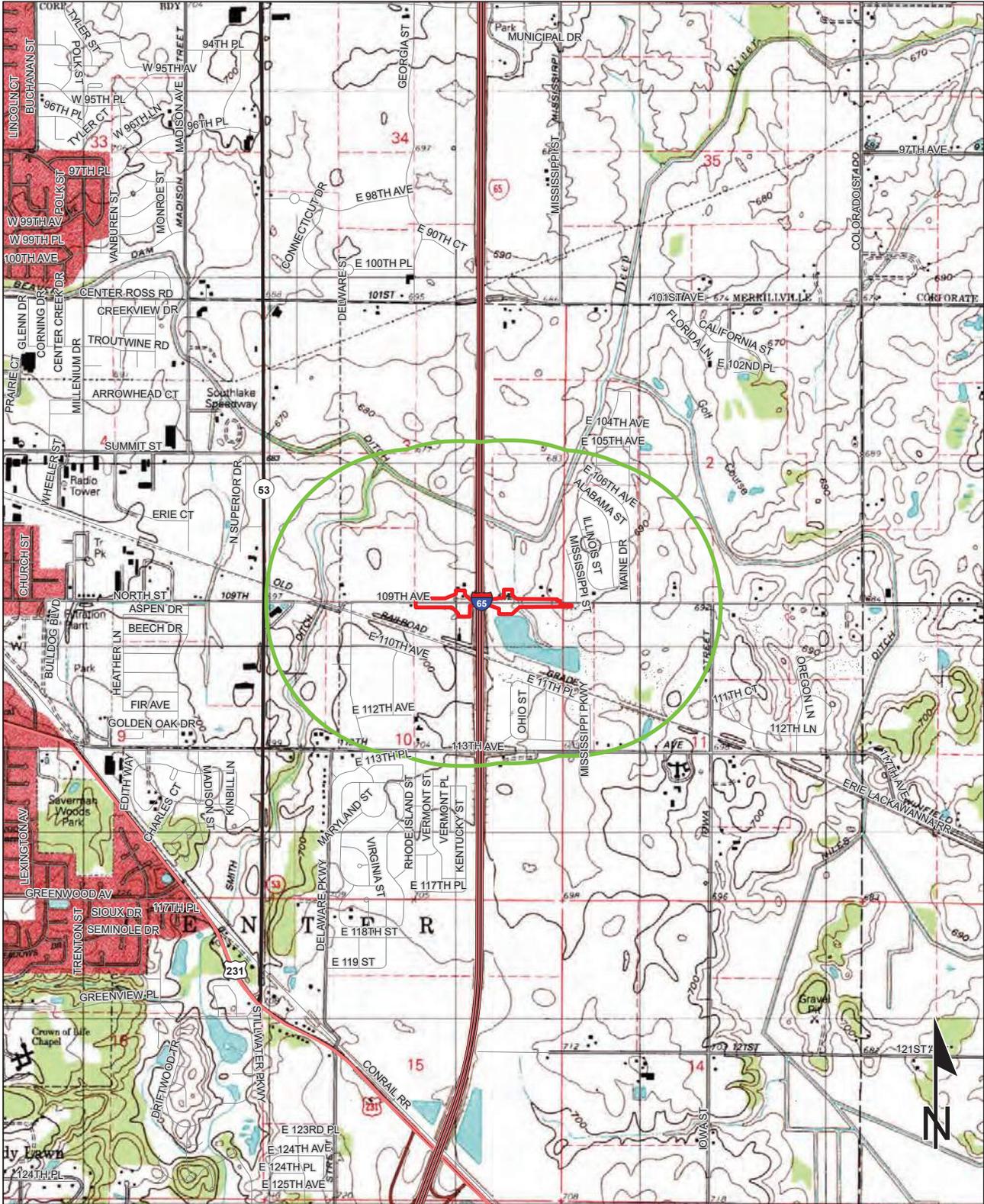
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES

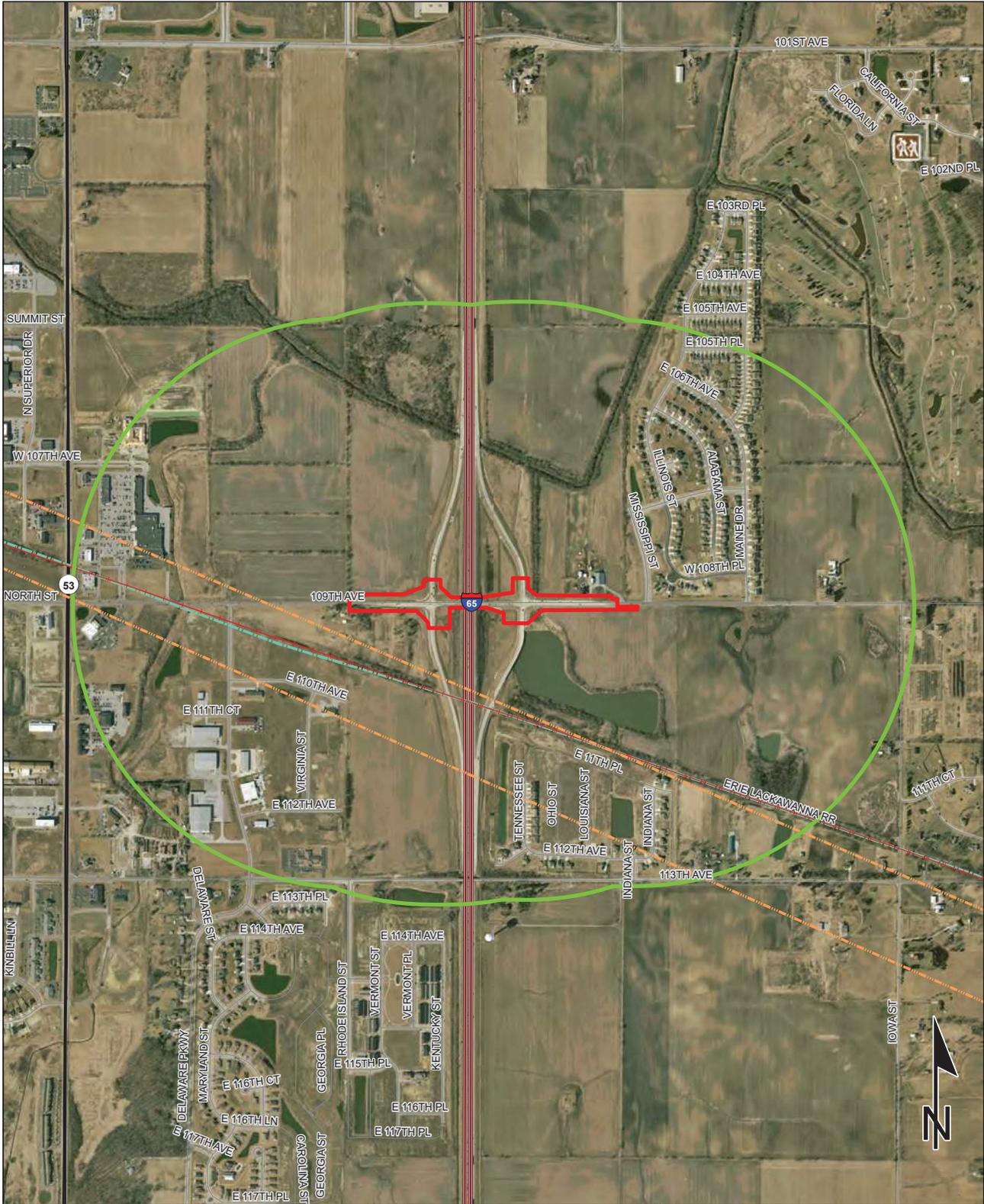
Red Flag Investigation Addendum - Site Location  
 I-65 at 109th Street  
 Des. No. 1801500, Interstate Access Project  
 Lake County, Indiana



Sources: 0.4 0.2 0 0.4 Miles  
**Non Orthophotography Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83  
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

**CROWN POINT QUADRANGLE  
 INDIANA  
 7.5 MINUTE SERIES  
 (TOPOGRAPHIC)**

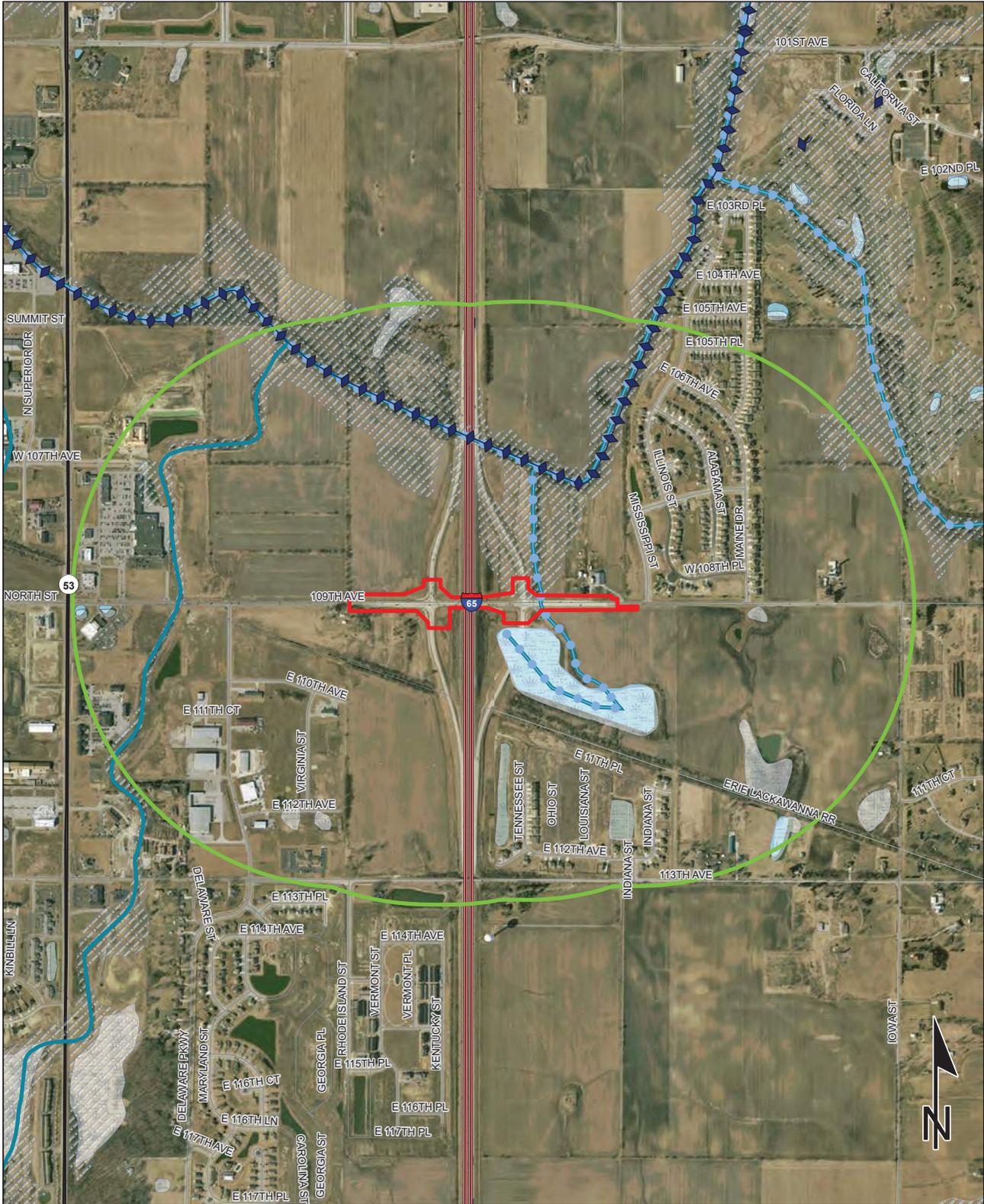
Red Flag Investigation Addendum - Infrastructure  
 I-65 at 109th Street  
 Des. No. 1801500, Interstate Access Project  
 Lake County, Indiana



Sources: 0.2 0.1 0 0.2 Miles  
**Non Orthophotography**  
 Data - Obtained from the State of Indiana Geographical Information Office Library  
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	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation Addendum - Water Resources  
 I-65 at 109th Street  
 Des. No. 1801500, Interstate Access Project  
 Lake County, Indiana



**Sources:**  
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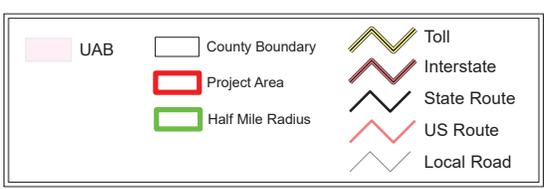
NWI - Point	Wetlands	Project Area
Karst Spring	Lake	Half Mile Radius
NWI - Line	Floodplain - DFIRM	Toll
Impaired_Stream_Lake	Cave Entrance Density	Interstate
NPS NRI listed	Sinkhole Area	State Route
River	Sinking-Stream Basin	US Route
Canal Structure - Historic	County Boundary	Local Road
Canal Route - Historic		

# Red Flag Investigation Addendum - Urbanized Area Boundary I-65 at 109th Street Des. No. 1801500, Interstate Access Project Lake County, Indiana

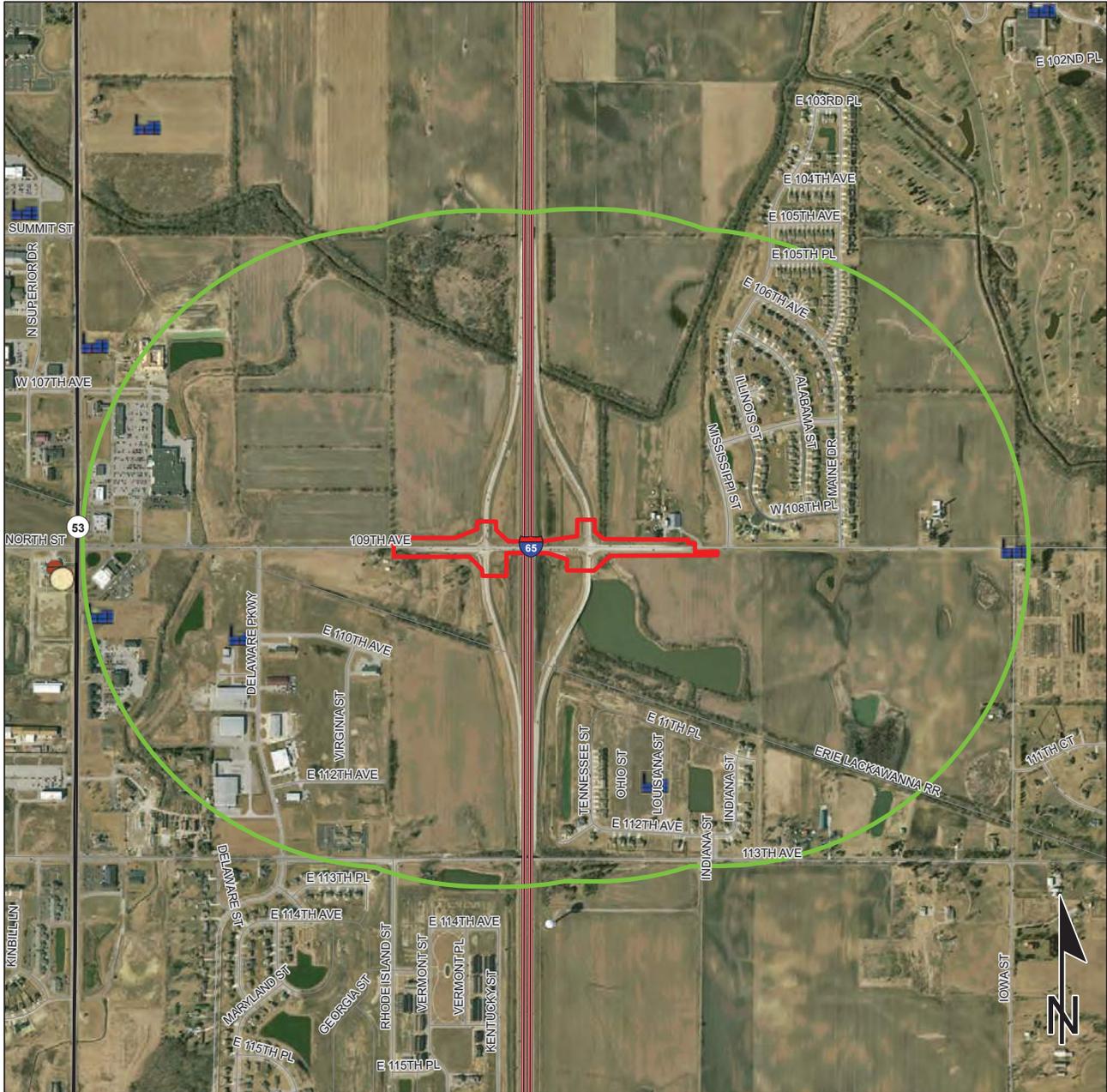


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Red Flag Investigation Addendum - Hazardous Material Concerns  
 I-65 at 109th Street  
 Des. No. 1801500, Interstate Access Project  
 Lake County, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				



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